

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE



Application of:

Applicant : Donald V. Lightcap Jr. et al.
Serial No. :
Filed :
Title : COMPOSITION, METHOD, AND APPARATUS FOR PROTECTING
PLANTS FROM INJURY CAUSED BY FROST OR FREEZING
TEMPERATURES
Docket : DVL-003PAT
Examiner : To be assigned
Art Unit : To be assigned

Honorable Assistant Commissioner of Patents
Washington, D.C. 20231

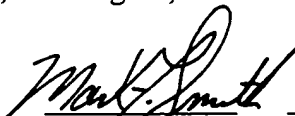
Sir:

INFORMATION DISCLOSURE STATEMENT

Pursuant to the applicant's duty of good faith and candor to the Patent Office under 37 C.F.R. 1.56, the Examiner's attention is directed to the following references identified on the attached Form PTO-1449. A copy of each reference is attached.

Reference AA, U.S. Patent No. 3,669,896 is of interest for its showing of foam protection of plant life. A foam concentrate from which foams to be used to protect vegetation from frost is described. The concentrate comprises a neutralized protein hydrolysate stabilized with specific proportions of iron and lignosulfonate.

I hereby certify that this correspondence is being deposited with the United States Postal Service in an envelope as "Express Mail Post Office to Addressee" Mailing Label Number EH584130624US, addressed to : Assistant Commissioner of Patents, Washington, D.C. 20231 on August 4, 1998.


Mark F. Smith 8/4/98
Date

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Reference AB, U.S. Patent No. 3,712,802 is of interest for showing a composition and method for treating plants and trees. A growth promoting composition influencing growth and yield of ornamental food-producing plants and vegetables is provided by controlled oxidation of partially hydrolyzed proteinaceous materials. The composition has also been found to unexpectedly lend substantial freeze resistance to plants.

Reference AC, U.S. Patent No. 3,712,803 is of interest for its showing of a composition and method for treating plants and trees. The composition is provided by combining a proteinaceous material, such as trash fish, with a lignin sulfonic acid salt, such as calcium lignin sulfonate, subjecting the mixture to acid hydrolysis effective to solubilize substantially all of the protein content, and treating the mixture with oxygen. The composition can be applied to plants and trees.

Reference AD, U.S. Patent No. 3,790,395 is of interest for its showing of a foamed cover composition. The composition comprises a thickener, a cationic surfactant, a waste filler, and if desired, an additive to effect desired sustained release or sustained acting characteristics.

Reference AE, U.S. Patent No. 3,964,689 is of interest for its showing of a hose-end dispenser device.

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Reference AF, U.S. Patent No. 4,086,331 is of interest for its showing of gelatin-based compositions and a method of the generation of stabilized foams therefrom. The method describes the generation of gelatin-based stabilized foams by passing a stream of air or other gas through a composition of the gelatin, an anionic surface-active agent and a water soluble ferrous salt.

Reference AG, U.S. Patent No. 4,874,641 is of interest for its showing of a method of providing a barrier between a substrate and the atmosphere and compositions therefor. A foam is generated from an aqueous composition comprising specified agents.

Reference AH, U.S. Patent No. 5,137,094 is of interest for its showing of a fire fighting foam delivery system.

Reference AI, U.S. Patent No. 5,215,786 is of interest for its disclosure of a composition for providing a foam barrier between a substrate and the atmosphere and the method of use.

Reference AJ, U.S. Patent No. 5,251,398 is of interest for its showing of a fibrous coating for protecting fruit bearing or blossoming trees, shrubs or other vegetation from freeze or frost.

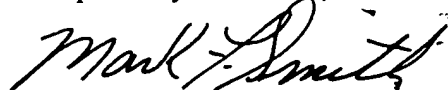
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Reference AK, U.S. Patent No. 5,433,758 is of interest for its showing of an apparatus and method for controlling weeds and undergrowth using liquid spray and foam.

Reference AL, U.S. Patent No. 5,653,054 is of interest for its showing of a process for preventing frost formation on plants. The process involves spraying the surfaces of plants with a frost prevention composition comprising a mixture of water, a water-soluble freezing point depressant, such as propylene glycol, and a water dispersible thickening agent such as a crosslinked polyacrylic acid polymer.

Representation as to the pertinency of the cited art has been made in good faith and is based upon present understanding of the claimed invention and the scope and content of the cited art. It is to be understood that the present submission of art is in no way intended to be a waiver of any arguments under the Rules of the U.S. Patent and Trademark Office and the statutes of the United States.

Respectfully submitted,



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August 4, 1998
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